Community Car Washes

New BMP: September, 1997

Description

This BMP applies to community car washes, that is, fund raising events for non-profit organizations where numerous vehicles are washed at one location over a short period of time. It also applies to individual car washing done at home. This BMP does *not* apply to do-it-yourself (coin) or drive-thru car washes, or the commercial cleaning of cars, trucks and equipment by private contractors. Commercial operations—including coin-operated, drive-thru and mobile washes—may need a permit from the MDEQ, Surface Water Quality Division.

Community Car Washes Done In Parking Lots:
Community car washes are often conducted outside on parking lots and other impervious areas. Wash water from the hoses carries away the dirt, oil, grease, salt and any soap or other cleaner the washers use. This dirty, soapy water works its way to either a grate near the curb (where it enters a sewer), or it collects somewhere off the parking lot (and infiltrates into the ground). Therefore, before you consider doing a community car wash, know where the water from your washing activities will go.

If the wash water from your community car wash will make its way to a sewer, the sewer will be either a storm sewer or a combined sanitary/storm sewer (see Exhibit 1):

- If the sewer is a storm sewer, then the "dirty" water will be carried by the storm sewer pipes and discharge to a lake or stream. Any "dirt" that settles out in the lake or stream will cover habitat needed by fish and aquatic insects. Any soaps (or detergents) that enter the lake or stream may make the water look foamy, and may harm aquatic life. Even soaps or detergents labeled "biodegradable" can be harmful because they contain surfactants—substances which may be lethal to sensitive organisms in low concentrations.

- If the sewer is a sanitary sewer or combined sanitary/storm sewer, the water will be piped to a wastewater treatment plant where the "dirty" water is treated.

Discharge to a sanitary sewer or combined sanitary/storm sewer is preferred over discharge to a separate storm sewer, if there is an option.

Community Car Washes Done On Grass:
When community car washes are done on large grassed areas, it is important that the grass is dense (thick). Do not wash cars on bare soil. Conduct the car wash away from wells and wellheads, especially if soap/detergent is being used. If you don't know where the wells and wellheads are, contact the local health department. Be sure to get permission from the landowner.

If the water will run off the grassed area or parking lot, or concentrate in a small area and infiltrate into the ground, you should contact the MDEQ, Waste Management Division to discuss the potential for contamination and ways to prevent it.

Pollutants of Concern

Soil ("dirt"), surfactants (soap/detergents), oil and grease.

Application

Land Use
This practice is applicable to any areas where cars are washed for community fund-raising purposes, or by individuals at home.

Soil/Topography/Climate
Cars should not be washed on bare soil.

When to Apply
Apply before washing cars for community fund raising purposes.

Where to Apply
Anywhere community car washes are done.

Relationship With Other BMPs

Community car washes should not be done on Buffer/Filter Strips.

Specifications

Planning Considerations:

If washing outside on parking lots or other impervious areas:

- Determine where the wash water will drain.
- If water drains to a sanitary sewer or combined/sanitary sewer, you should obtain permission from the wastewater treatment plant operator before beginning your community car wash.
- If wash water drains to a storm sewer, wash vehicles using water alone, without soap. Not using soap will leave only the "dirt" and attached pollutants, which can be trapped before entering the sewer. To trap these pollutants, cover the storm sewer with a filter fabric and pea stone (see Exhibit 2).

If washing on thickly grassed areas:

- Obtain permission from the landowner to use the land for community car washing purposes.
- Make sure the wash area isn't near wells or wellheads.
- Use water alone, without soap/detergents, if possible. This will reduce the potential for ground water contamination.
- If you do use soaps/detergents, use those that are biogradable.

Other Tips:

- Consider working with local commercial car wash operators. In some cases, the commercial operators will give community organizations some of the profits in exchange for the organization's "campaigning" efforts.

- To preserve water, use a bucket and wash from it instead of leaving the hose running. In 60 seconds, a 5/8 inch diameter hose left on can use 14 gallons of water. For a ten-minute car wash, that's 140 gallons for one car. If using a bucket is not practical, attach a spray nozzle onto the hose to restrict the flow of water when it's not needed.

After the Car Wash:

If a filter fabric and pea stone structure is used, shovel off the pea stone and the pollutants (dirt, oil/grease, etc.) it captured, and remove the filter fabric. The filter fabric, pea stone and pollutants attached to the pea stone should be disposed of in the trash.

Exhibit 1

Exhibit 1: Sanitary Sewers versus Storm Sewers.

Exhibit 2: Geotextile-Stone Inlet Filters, modified from Virginia Sediment Control Manual.

Exhibit 1

Sanitary Sewers versus Storm Sewers

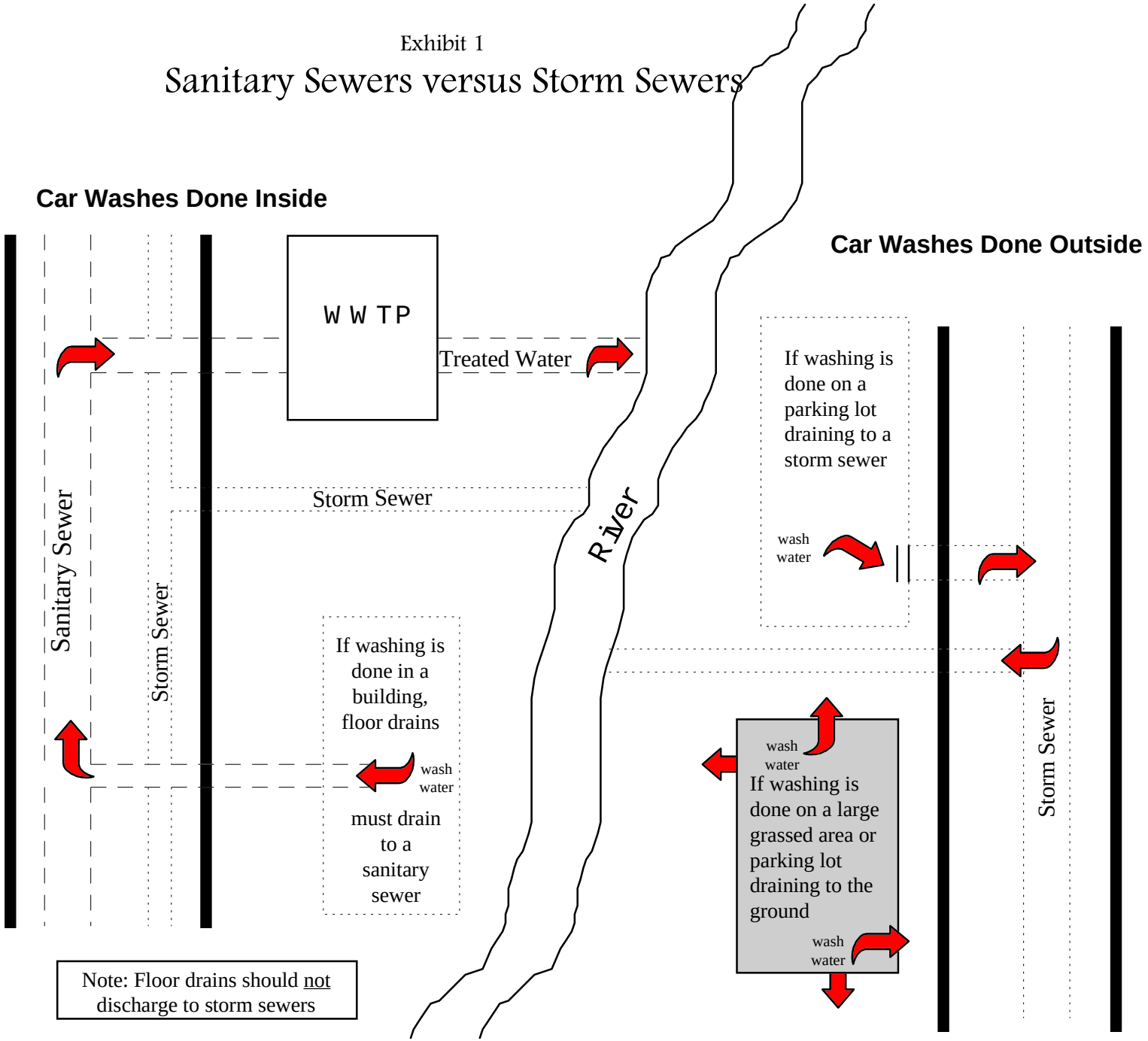


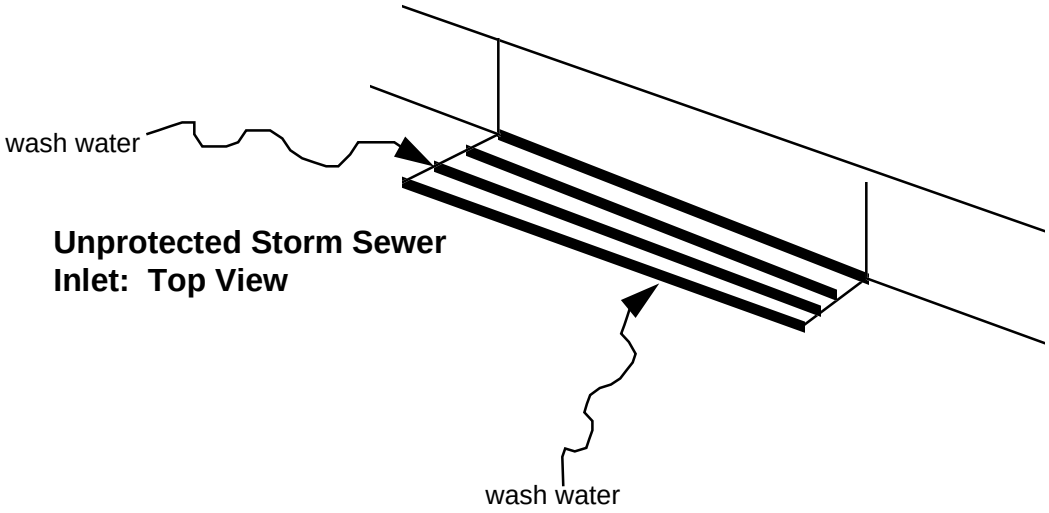
Exhibit 2

A Simple Way to Protect Storm Sewers during Community Car Washes

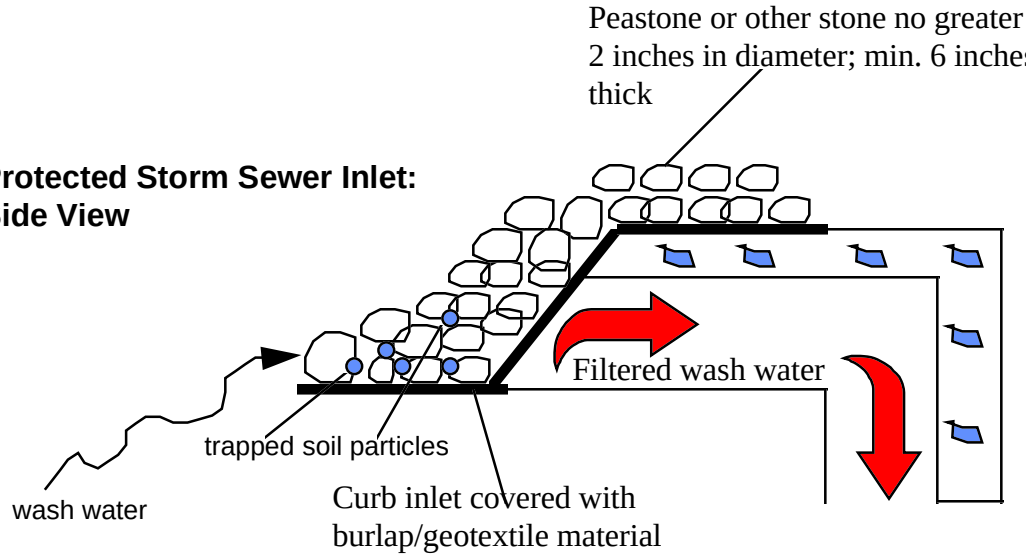
Simple stone filters can be used to prevent “dirt” and other pollutants from entering storm sewers. The purpose of the filter is to trap the pollutants in the stone and filter fabric.

Below is a simple way to make a stone filter to protect storm sewer inlets:

Take hardware cloth, geotextile filter fabric, burlap, or wire mesh with mesh size no larger than 1/2 inch, and wrap it around the storm sewer inlet. Allow extra cloth/wire to extend beyond the perimeter of the inlet. Lay six inches of peastone or small gravel (no larger than 2 inches in diameter) on top of the fabric/wire mesh. Upon completion of the car wash, remove all parts of the filter and dispose in the trash.



Unprotected Storm Sewer Inlet: Top View



Protected Storm Sewer Inlet: Side View

Modified from Vigrinia Sediment Control Manual